SPECIFICATION AMENDMENTS

Please replace the paragraph beginning on page 2, line 13 and ending at line 23 with the following paragraph.

However, while there may not be a direct electrical connection between the isolated via and the ground and power planes, there is nevertheless a capacitance effect which couples signals that may be conducted by the via to the ground and power planes. This capacitance effect is exacerbated as the frequency of the signals which may be conducted by the via increase. At frequencies exceeding a gigahertz range, this effect may become significant and serve to limit the distance with which signals may be coupled on the printed-circuit board or through connectors to other circuit boards.

Please substitute the following paragraph for the paragraph beginning on page 2, line 24 and ending on page 3, line 2 as follows:

The current [[As a]] trend in the industry is to use higher frequency signals, thus there is a need in the industry for an improved method of propagating high frequency signals utilizing printed-circuit boards.

On page 4 of the specification after line 13, please add the following paragraph:

Figure 11 is a circuit board including an electronic device coupled to the circuit board in a transmission line.

Please substitute the paragraph beginning on line 1 of page 5 and ending on line 8 with the following paragraph:

In the following description of the invention, numerous specific details are set forth to provide a detailed understanding of the present invention. However, one skilled in the art will readily appreciate that the present invention may be practiced without these specific details. The specific details are provided by way of example and not by way of limitation.

Please substitute the paragraph beginning on page 5 line 9 and ending on page 5, line 12 with the following paragraph:

In the drawings, like or similar elements are designated with identical reference numerals throughout the several views and may not be described in detail for all drawing figures. Also, the various elements depicted are not necessarily drawn to scale.

Please substitute the paragraph beginning on page 7 line 3 and ending on page 7, line 15 with the following paragraph:

The conductive via 111 has the characteristic of a transmission line. That means it has inductance and capacitance distributed along its length as illustrated in Figure 3. As illustrated, the capacitors 301 may be the capacitance due to the capacitive coupling between the conductive via 111 and the conductive planes 103 and 105 as shown in Figures 1 and 2. The resistance 303 may be the source resistance of a driving device while resistor 305 may represent a load impedance. The inductors 307 may represent the inherent inductance of the conductive via and associated traces. The inductance and capacitance of the via and associated traces gives the signal path (transmission line) a characteristic impedance.

Please replace the paragraph beginning on page 10, line 17 and ending on page 10, line 25 with the following paragraph:

Referring now to Figure 9, in still another embodiment, a signal trace 901 may be partially encapsulated by a ferromagnetic covering 903. This ferromagnetic covering 903 may provide a high permeability path for a B-field ~~b-field~~ (magnetic field) above and to the side of the signal conductor 901. Therefore, by using this ferromagnetic covering, the magnetic field associated with the signal trace 901 may be increased and the associated inductance may increase.